(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 7 October 2004 (07.10.2004)

PCT

(10) International Publication Number WO 2004/086146 A1

(51) International Patent Classification⁷:

G03F 7/038

(21) International Application Number:

PCT/KR2004/000640

(22) International Filing Date: 24 March 2004 (24.03.2004)

(25) Filing Language:

Korean

(26) Publication Language:

English

(30) Priority Data:

10-2003-0018127

24 March 2003 (24.03.2003) K

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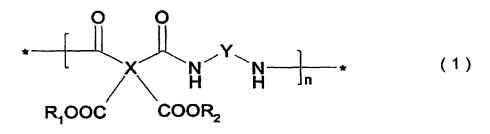
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report

[Continued on next page]

(54) Title: TRANSPARENT, HIGHLY HEAT-RESISTANT POLYIMIDE PRECURSOR AND PHOTOSENSITIVE POLYIMIDE COMPOSITION THEREOF



(57) Abstract: The present invention relates to an aqueous alkali-developable photosensitive polyimide precursor resin composition that is appropriate for highly heat-resistant transparent protection layers and insulation layers for liquid crystal display devices. In more detail, the present invention relates to a negative-type photosensitive transparent polyimide precursor resin composition manufactured in two steps. The first step is the manufacture of a transparent linear polyamic acid (A) from (a-1) one or more kinds of tetracarboxylic acid dianhydrides selected from alicyclic tetracarboxylic acid dianhydrides having 3 to 30 carbon atoms; and (a-2) one or more kinds of diamines selected from aliphatic, alicyclic, or non-conjugated aromatic diamines, having 3 to 30 carbon atoms, having one or more ethylenically unsaturated bonds at side chains as essential components; and the second step is the manufacture of reactive transparent polyimide precursors shown in the following Chemical Formula 1 according to the esterification reaction of the above polyamic acid (A) with ethylenically unsaturated compound (B) containing an epoxy group in the same molecule as the main component. The photosensitive transparent polyimide precursor resin compositions according to the present invention have a superior photosensitivity, and thus, may be used for transparent protection layers and insulation layers of liquid crystal display devices having superior heat resistance, chemical resistance, mechanical strength, and electricity insulation.



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